Hi. Thanks for answering my call for people to interview about Flash games. I have a bunch of questions outlined below and the more in-depth your answers, the better, but please don't feel pressured to answer every one of them.

Please note in this list of questions: when I ask you about "Flash games" specifically, I mean the ones released in-browser between 1999 and 2021. If you're still making games with Flash, great! I'd like to hear about it. But since this book is mainly focused on Flash games in the browser, I'd like answers based around that context.

Personal History

- **Tell me about yourself.**
  - I'm Daniel Sun, an Australian 2D animator and game developer. From as far back as I can remember I've always had an artistic flair and a passion for animation and storytelling as well as a huge interest in gaming. I knew from a young age that games development and animation would be a big part of my life. Now I find myself working in both fields having spent over 10 years making games for the web, mobile, PC while also working as an freelance animator. I'm currently a 2D FX animator on an Australian kids cartoon Bluey.
- **What Flash games did you make?**
  - Mario Combat - A mixture of Mario Bros and Mortal Kombat. You play as Mario fighting his way through Bowser's Castle using your fists to beat your way through enemies.
  - Light People on Fire - A game where you play as a tree… but secretly you're a man on fire. The goal is to sneak up on your victims and then burn them.
  - Zombie Mayhem - An arcade style lane shooter game inspired by the classic windows game BeerTender. Equipped with a bow and arrow, you must fend off the horde of zombies.
  - Armed with Wings - a series of 2D side scrolling action games known for its monochromatic art style, fluid animation and sword wielding combat. I consider it to be the most important work I've done. The series has been around since 2008 and has seen 6 entries in the series.
- **How else were you involved in the Flash community?**
  - I was deeply part of the VGDC community. VGDC (Video Game Directors Cut) was created by Randy Solem who became immensely popular in the newgrounds world for his video game parodies that took old video games sprites from retro gaming consoles. What caught my attention was his Mario vs Sonic movie. I was fascinated that he could make an animation that looked just like the old games I used to play. I participated in a number of collabs with other VGDC members and made many friends online with a common passion for animation and gaming.

- **What was your first Flash game that you played, and on what site?**
  - The first Flash game that I played was the impressive XiaoXiao 4, a game inspired by arcade shooters like Time Crisis. My cousin gave it to me on a usb stick that I could play offline, I didn't even know it was a flash game. Other Flash games I played in the early days were Drag Racer and Madness Interactive, both were also given to me as a Windows desktop game. It turns out I was introduced to Flash games outside of the web!
- **What do you remember about the community? How they interacted, voted, shared games with eachother?**
  - Flash enthusiasts and myself would spend a lot of time connecting with each other and sharing content and discussion on MSN Messenger. I did hear about some voting groups that would band together to unfairly influence the scoring system on Newgrounds, resulting in some really bad quality animation winning awards through the NG System.
- **What are your favorite Flash games? Both massive and obscure.**
  - Popular Pick
    - **Fancy Pants Adventure** by Brad Borne. A super popular and deeply fun 2D Platformer with amazing physics. This was a flash game that was comparable to a console indie game and was far ahead of its time.
  - Obscure
    - **Red Code**. A 2d wave based shooter. This game inspired me to take my art to the next level. I loved the atmospheric vibe of the foggy alien planet and the creepy aliens shapes and designs.
- **What was your favorite portal and why? Any runner-ups?**
  - Newgrounds is my favourite portal. Tom Fulp and the team are fantastic at what they do and have built a site with great use, functionality, style and community. I've always felt creatively empowered and constantly inspired because of Newgrounds. The fact that they offer a place to digest animation, games, art and music, and build a strong community around all of that is nothing short of astonishing. As a creative guy who's involved in all those categories of art, NG is my favourite site on the internet - period.
  - My second runner up would be ArmorGames. I had a strong developer relationship with them, and the site runners are fantastic people who I have great respect for. A gamer could go onto armorgames.com and always find something amazing to play. Many of the developers they nurtured and worked with are some of my favourite people in the indie space.
- **What would you consider your strongest memory of Flash gaming? It doesn't have to be necessarily the best.**
  - It's hard to pick a single memory. As an avid Super Smash Bros player, I recall discovering a game on Newgrounds called Super

Smash Flash. It was like Smash Bros, but it had many more characters that Nintendo would never put into the official Smash Bros (at least not until recently). We could only dream of Megaman or Goku in Smash Bros. Super Smash Flash made that dream a reality. However, the game honestly kinda sucked. Years later, the developer McLeodGaming released Super Smash Flash 2, raising the bar far beyond anything I'd ever seen done in Flash and to this day I'm astounded by what that game achieves in perfectly imitating the official Smash Bros.

- **Do you remember any portals, users or general stories that a casual community member might not know of? I'd love to get some more obscure stories into the book.**
  - I just want people to know that Newgrounds is the birthplace of so much amazing talent. It has and continues to raise a generation of creative minds and brilliance.
  - Flash games drove a lot of traffic. Newgrounds was big, but other gaming portals became bigger in terms of traffic. However these giant portals were not as culturally significant as Newgrounds, and they would always look at a game's success on Newgrounds to determine its viability.
  - Many sponsors would reward their developers based on their games performance on Newgrounds and not the other way around.
- **Overall, what is your favorite part of Flash games, major or minor?**
  - I was absolutely in love with the amount of unofficial Nintendo games and fan tributes available. Often as a kid I didn't have access to the latest Sonic or Mario, DragonBall or Star Wars game, and it would feel like an eternity before the next big release. There was always something amazing that someone made in Flash that would scratch that itch.

Developing for Flash

- **What made you consider developing a Flash game?**
  - I was 10 years old, wanting to make games but had no idea how or where to start. Having approached Flash as an animator first, I didn't realise that the web games I played were made in Flash. The very concept of a 'Flash Game' didn't make sense to me because I only thought of Flash in relation to animation. Eventually I would discover that there was an entire world built in Flash where you could combine code and art to make anything.
- **How difficult was it for you to get started?**
  - I was awful at coding to begin with and found making games incredibly difficult. Tutorials In those early days were not as abundant or detailed as they are now and had I not been dedicated, I easily would have given up.

- **What was the first Flash game you released, and on what site? What do you remember about its release?**
  - The first complete game that I released onto Newgrounds was called PowerBall. It's like if baseball was to become a 2d fighter. Two players with bats face each other, hitting the ball at high speed back and forth like ping pong. If you miss, you lose. PowerBall was also my first game to be Sponsored. I struck a deal over email with Games Reloaded to include their branding on the game and in return they paid me $150.
- **What drew you to making Flash games specifically? Did other platforms like Shockwave, Unity, Java or so on carry any appeal?**
  - Before Flash, I used a program called the Games Factory to make games with some success. It was an interesting tool that was reasonably easy to use. As I became more comfortable working in Flash, there was little appeal for me to continue using the Games Factory as I could not share that content on Newgrounds. While there existed a community around shareware and windows desktop games (in the early 2000s), the newgrounds community was more easily engagable and accessible to me. Flash games also had the advantage of going viral far more easily.
- **Did you work alone? If not, who did you work with, and how did you meet them?**
  - For the most part I would work alone. When the time came to add sound and music to my work, I looked to the Newgrounds Audio Portal. I have partnered with programmers in the past to make some awesome games too. Although I was always eager to team up, many projects didn't work out as a result of poor partnerships. These days I'm very picky with who I work with.
- **Can you give me just a quick, point-by-point overview of how you developed games? The technical side of things purely - how you program for Flash, how you create resources like graphics & sound (if applicable), how functionality improved & things changed in later versions of Flash, anything you can think of that might be noteworthy or interesting to the nerdy-minded.**
  - What I adore about Flash Game development is that everything can be done in a single program, Adobe Flash Professional. It's a powerful, simple and fast way to make games because all the art, animation and code can be produced in the same place allowing for a very tight pipeline.
  - I usually start a project by drawing out my ideas. This includes mock screenshots, characters, levels and items. I can do these drawings on paper, or directly into an empty Flash document.
  - Personally I like to have some art assets to work with before I start coding. I'll use my character designs as a reference to make a few key assets like the main character standing, walking and jumping.
  - With my basic character assets ready, I begin coding control for the character.

    - At this point the character will need a world to explore. So I'll draw up some assets for a level and code that into the game.
    - Once I get to the point where the game resembles my concept drawings, I'll spend much more time coding in strong foundations to support scaling, meaning that there is a system in place for adding new things to the game.
- **Were there any interesting technical challenges you had to face while making a game in Flash?**
    - Flash has always been a multi solution tool. It's designed in a way that creators can make animation, web content, websites, banners, CD ROM applications and much more. Because of this 'one size fits all' approach, it's always had some quirkiness when used for games development. The greatest challenge was to keep performance optimal at larger resolutions. Flash heavily relies on the CPU for desktop, and only utilises the GPU in very specific situations resulting in generally pathetic performance.
- **What was the development community like? Any forums or boards or other sites that are worthy of mention?**
    - I learned how to code almost entirely from forum threads on Newgrounds. The community produced a thread called AS Main with an ever growing list of tutorials and helpful links. It would be constantly updated with new tips, tricks and tutorials. I still refer to that thread sometimes when I need some help.
- **Did you make games as a hobby, on the side, or a full time job? Did it ever get 'serious', and if so, when?**
    - Although it began as a hobby, I knew that I wanted to become a full time professional games developer. I accidentally stumbled across monetization sd web portals would approach me for sponsorship. Before I knew it, I had multiple sponsors placing bids on my games for advertisement rights and with each game I made would be of high quality, the opportunities for higher revenue increased.
- **What was your first "viral game", what were the circumstances around it, and what was it like inside your head and on your site/portal entry when it did go viral?**
    - The Flash Game market was hot when I got started. Most of my games went viral to varying degrees because portals were aggressively adding content to their websites. Some games I would whip together in a week or two would outperform others games that would take me months or years to make! Armed with Wings 3 would finally become one of my best performing games, being played over 10 million times. This result was astonishing to me and became even more surreal when reviews were being published with warm words of appreciation.
- **Did you ever have a strategy when making games, marketing or business wise? Or did you just work on what was fun?**
    - I never had a concrete strategy or plan. My approach was lucid and would often shift. The unconscious strategy was to always make

better stuff, and try different concepts while raising the bar of quality. I alternate between bigger and smaller projects as well as different types of games.

- **What was it like working with Flash portals like Kongregate? What sort of deals would you make, if any? Did you ever use something like Flash Game License, and if so, can you tell me about your experience with it?**
  - I would publish to kongregate but I never struck a sponsorship deal with them. I would utilise the services of FGL and found many new sponsors that way. FGL led to many partnerships with different portals and companies, the biggest being the likes of Cartoon Network and King. There were a lot of businesses that wanted a piece of the Flash Game market and they would be willing to drop a ton of money. I have genuine respect for sites such as Kongregate, Armorgames and Newgrounds - but often there were other bland and uninteresting portals that would pay a higher price. If I could go back now, I would have taken a smaller deal with a portal I had more respect for than to sell my game to these other companies that no longer exist.
- **How much did the community support you, and how did they contribute to your success?**
  - I still get emails to this day from fans expressing their appreciation of games that I made over 10 years ago. It's the support from the players that fuels my passion and drives me to keep creating new content.
- **Were you around pre-and-post Macromedia era Flash? Are you able to draw a comparison between the two companies' handling of the technology?**
  - I was around in the days of Macromedia Flash 5 but cannot draw comparisons between them and Adobe. While Adobe has certainly neglected the Flash platform, it's also improved it a lot. It's impossible for me to say what would have happened if the software stayed with Macromedia. For all I know Macromedia could have handled the situation worse.
- **Do you think Adobe buying Flash at the end of the day caused more damage than it would have if Macromedia hadn't been bought out?**
  - Impossible for me to say. I have no perspective on the conditions of Macromedia when they were bought out by Adobe.
  - My guess is this: Macromedia was a competitor to Adobe. Had Macromedia been the one to purchase Adobe, they would have ultimately become what Adobe is today.

The End of Days

- **At what point did Flash go into "freefall" in the public consciousness, in your point of view?**
  - When Steve Jobs wrote his public letter about Flash on iOS in 2010.

- **Have you ever met anyone blatantly anti-Flash or anti-Flash games specifically? Did you try to change their mind? Were you successful?**
    - Traditional gamers, those on consoles and PC would sometimes have a dismissiveness towards Flash games. I've often heard the expression "it's just a shitty Flash game" being uttered by gamers exposed to a Flash game discussion, even when these games made the jump from the browser to Steam or even console.
- **What didn't you like about Flash as a platform, either during its peak or fall? Anything specifically egregious worth mentioning?**
    - It was / still is a slow, low performing program. Autodesk had a piece of software called Scaleform that could take content made in flash and super charge its performance. It could deploy that content to gaming consoles. It's never made sense to me why a 3rd party Flash Player could do so much more than the real Flash Player.
- **Around what point did Flash stop becoming profitable and/or getting enough back to cover development time? Did this make you want to stop making Flash games?**
    - The popularity of mobile gaming and app stores took the thunder away from web and browser gaming. I never wanted to stop making Flash games, in fact I never stopped making them. Flash can still be used to make games for mobile and PC.
- **How many people were still playing your games at the end? Did you ever find out overall total player numbers? Any thoughts on those numbers?**
    - Some of my Armed with Wings games were played over 100,000 times in 2021. I'm still so happy that my games continue to be played even though they are 10 years old.
- **Any opinions on the state of the indie gamedev industry, and what it was like compared to Flash at its rise & peak?**
    - The indie games industry began with Flash games for the web and naturally continued to mobile at the end of Flash. A large majority of indie devs in those days dreamed of developing for consoles - but the pathway was closed unless you were an established company with the funds to afford an expansive console dev kit. Now that the gates have opened, many indies don't have to compromise on the platform on which their games exist.
- **How do you feel about Flash having gone away from browsers? Do you miss it? What do you miss the most about it?**
    - While web gaming is not what it was in the late 2000s, It's still alive and I love it! However, developing for the web using html5 is much more complicated. Nothing is quite as easy as Flash.
- **If you could do it all again, would you?**
    - Make more games.
- **What have you been up to since Flash left the public consciousness?**

    - I use Flash to prototype new game ideas. In 2017, I released a Flash Game to Steam called Armed with Wings Rearmed. I'm currently working on an Australian TV series called Bluey - building up my 2d animation skills and studio experience.
- **What do you think of efforts like AwayFL and Ruffle? Do you think they might recapture the magic of Flash in the browser if ever completed?**
    - I think they will be successful in preserving existing flash content. I hope they will eventually go beyond emulating flash and begin to add new features to Flash.
- **Speaking of recapturing the magic, how do you feel about HTML5 games today?**
    - While I love developing html5 games, it’s much more difficult than creating games in Flash - which is a shame.
- **How can we play your games now that Flash has been exorcised from most browsers?**
    - Ruffle has enabled many of my earlier games to become playable in the browser again. As for the other games that don’t work anymore, Newgrounds has a solution to run those games locally on PC. There’s also of course the FlashPoint archive. As for my games that Ruffle cannot emulate, those are currently being reworked for Steam.
- **Are you still using Flash for anything in particular today?**
    - I use Flash everyday at work for creating animation for Bluey. I continue to use Flash for games developing and rapid prototyping.
- **Anything else you want to say?**
    - Long live Flash.